Complete Summary

GUIDELINE TITLE

Pediatric basic and advanced life support: 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations.

BIBLIOGRAPHIC SOURCE(S)

Pediatric basic and advanced life support. In: 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Suppl):III73-90. [337 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Cardiopulmonary arrest (cardiac arrest)

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Cardiology
Emergency Medicine
Family Practice
Internal Medicine
Pediatrics

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Emergency Medical Technicians/Paramedics
Health Care Providers
Hospitals
Nurses
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To provide guidance on pediatric cardiopulmonary resuscitation

TARGET POPULATION

Infants, children, and adolescents in cardiopulmonary arrest

INTERVENTIONS AND PRACTICES CONSIDERED

Management

1. Activating emergency medical services and getting the automated external defibrillators
2. Cardiopulmonary resuscitation (CPR)
    - Mouth-to mouth and nose (for infants) or mouth-to-mouth ventilation
3. Pulse check
4. Chest compression technique
    - Circumferential vs. 2-finger chest compression
    - One vs. 2-hand chest compression technique
    - Compression to ventilation ratio
5. Management of supraventricular tachycardias
    - Valsalva manoeuver
    - Application of ice to the face
    - Amiodarone
    - Procainamide
6. Management of stable wide-QRS tachycardia
    - Amiodarone
    - Procainamide
7. Management of unstable ventricular tachycardia (VT)
    - Amiodarone
8. Pediatric defibrillation
    - Manual defibrillation
    - Automated external defibrillation

9. Management of shock-resistant ventricular fibrillation (VF)/pulseless VT
    - Amiodarone
10. Maintenance of a patent airway and ventilation
    - Bag-valve-mask ventilation
    - Cuffed vs. uncuffed tracheal tubes
    - Laryngeal mask airway
11. Confirmation of tube placement
    - Detection of exhaled carbon dioxide (CO_2) using a colorimetric detector or capnometry
    - Use of an esophageal detector device
12. Administration of 100% oxygen
13. Drug delivery routes
    - Intraosseous access
    - Drugs administration via tracheal tube
14. Drugs in cardiac arrest
    - Epinephrine
    - Vasopressin (considered but insufficient evidence for recommendation for or against administration)
    - Magnesium (for hypomagnesemia and torsades de pointes VT, but insufficient evidence for or against routine use in cardiac arrest)
15. Postresuscitation care
    - Avoidance of hyperventilation in most circumstances
    - Use of therapeutic hypothermia
    - Prevention and treatment of hyperthermia
    - Vasoactive drug use
    - Treatment of and monitoring for hypoglycemia and hyperglycemia
16. Recognizing when resuscitation efforts should be discontinued

MAJOR OUTCOMES CONSIDERED

- Survival
- Neurological outcome
- Successful resuscitation
- Return of spontaneous circulation

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

All reviewers were instructed to search their allocated questions broadly. Reviewers documented their search strategies to ensure reproducibility of the search. The minimum electronic databases searched included the Cochrane database for systematic reviews and the Central Register of Controlled Trials (http://www.cochrane.org/), MEDLINE (http://www.ncbi.nlm.nih.gov/PubMed/), EMBASE (www.embase.com), and the master reference library collated by the

American Heart Association (AHA). To identify the largest possible number of relevant articles, reviewers were also encouraged to perform hand searches of journals, review articles, and books as appropriate.

The reviewers documented the mechanism by which studies relevant to the hypothesis were selected. Specific study inclusion and exclusion criteria and study limitations were documented. Inclusion of all relevant evidence (from animal and manikin/model studies as well as human studies) was encouraged.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level 1: Randomized clinical trials or meta-analyses of multiple clinical trials with substantial treatment effects

Level 2: Randomized clinical trials with smaller or less significant treatment effects

Level 3: Prospective, controlled, nonrandomized cohort studies

Level 4: Historic, nonrandomized cohort or case-control studies

Level 5: Case series; patients compiled in serial fashion, control group lacking

Level 6: Animal studies or mechanical model studies

Level 7: Extrapolations from existing data collected for other purposes, theoretical analyses

Level 8: Rational conjecture (common sense); common practices accepted before evidence-based guidelines

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

A worksheet template was provided with step-by-step directions to help the experts document their literature review, evaluate studies, and determine levels of evidence. When possible, 2 expert reviewers were recruited to undertake independent evaluations for each topic.

Assessing the Quality of Evidence

In this step reviewers were asked to determine the level of evidence of relevant studies (Step 2A), assess the quality of study research design and methods (Step 2B), determine the direction of results (Step 2C), and cross-tabulate assessed studies (Step 2D).

The levels of evidence used for the 2005 consensus process were modified from those used in 2000. In many situations summary conclusions were based on lower levels of evidence because human clinical trial data was not available. The reviewers assessed the quality of research design and methods and allocated each study to 1 of 5 categories: excellent, good, fair, poor, or unsatisfactory. Studies graded as poor or unsatisfactory were excluded from further analysis.

Reviewers evaluated the direction of the study results as supportive, neutral, or opposed and then depicted the data in 1 of 2 grids. The grids were 2-dimensional, showing quality and levels of evidence. The reviewers completed a Supporting Evidence grid and a Neutral or Opposing Level of Evidence grid.

Controversies Encountered

Studies on Related Topics (Level of Evidence [LOE] 7)

Many reviewers identified studies that answered related questions but did not specifically address the reviewer's initial hypothesis. Examples include the extrapolation of adult data for pediatric worksheets and extrapolation of the results of glucose control in critically ill patients to the postresuscitation setting. Worksheet reviewers were instructed to clearly designate evidence that represented extrapolations. Reviewers could designate such studies as LOE 7, or they could assign a level of evidence based on the study design but include terms such as "extrapolated from" with specific relevant details in the draft consensus on science statements to indicate clearly that these were extrapolations from data collected for other purposes.

Animal Studies and Mechanical Models

Animal studies can be performed under highly controlled experimental conditions using extremely sophisticated methodology. Irrespective of methodology, all animal studies and all studies involving mechanical models (e.g., manikin studies) were classified as LOE 6. Specific details about these studies (including methodology) are included in the summary of science where appropriate.

Studies Evaluating Diagnosis or Prognosis

The default levels of evidence used for the 2005 consensus process were not designed for the review of studies that evaluate diagnosis or prognosis. For these

studies other methods of assigning levels of evidence were considered (such as those proposed by the Oxford Centre for Evidence-Based Medicine [http://www.cebm.net/]). Worksheet reviewers planning to include alternative levels of evidence were asked to define such levels clearly and to retain the default levels of evidence.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus
Expert Consensus (Consensus Development Conference)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Worksheet reviewers created a summary of the science. In the summary format reviewers were encouraged to provide a detailed discussion of the evidence, including the outcomes evaluated and the strengths and limitations of the data.

The final step in the science summary process was the creation of draft consensus on science statements and treatment recommendations. Statement templates were provided to standardize the comprehensive summary of information. Elements of the consensus on science statement template included the specific intervention or assessment tool, number of studies, levels of evidence, clinical outcome, population studied, and the study setting. Elements of the treatment recommendation template included specific intervention or assessment tool, population and setting, and strength of recommendation.

The statements drafted by the reviewers in the worksheets reflect the recommendations of the reviewers and may or may not be consistent with the conclusions of the 2005 Consensus Conference.

All 380 participants at the 2005 Consensus Conference received a copy of the worksheets on CD-ROM. Expert reviewers presented topics in plenary, concurrent, and poster conference sessions. Presenters and participants then debated the evidence, conclusions, and draft summary statements. Each day the most controversial topics from the previous day, as identified by the task force chairs, were presented and debated in one or more additional sessions. The International Liaison Committee on Resuscitation (ILCOR) task forces met daily during the conference to discuss and debate the experts' recommendations and develop interim consensus science statements. Each science statement summarized the experts' interpretation of all the relevant data on a specific topic. Draft treatment recommendations were added if a consensus was reached.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Completed worksheets were posted on the Internet for further review. The initial process involved posting the worksheet to a password-protected area of the American Heart Association Intranet (accessible to worksheet reviewers). In December 2004 the completed worksheets were posted on an Internet site that could be accessed by the public for further review and feedback before the 2005 Consensus Conference in Dallas (www.C2005.org).

Wording of science statements and treatment recommendations was refined after further review by International Liaison Committee on Resuscitation (ILCOR) member organizations and the international editorial board. This format ensured that this final document represents a truly international consensus process.

The manuscript was ultimately approved by all ILCOR member organizations and by an international editorial board. The American Heart Association (AHA) Science Advisory and Coordinating Committee and the editor of Circulation obtained peer reviews of this document before it was accepted for publication. The document is being published simultaneously in Circulation and Resuscitation, although the version in Resuscitation does not include the sections on stroke and first aid.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Levels of Evidence (LOE) (1-8) are defined at the end of the "Major Recommendations" field.

Initial Steps of Cardiopulmonary Resuscitation (CPR)

Activating Emergency Medical Services and Getting the Automated External Defibrillator (AED)

A period of immediate CPR before phoning emergency medical services (EMS) and getting the AED ("call fast") is indicated for most pediatric arrests because they are presumed to be asphyxial or prolonged. In a witnessed sudden collapse (e.g., during an athletic event), the cause is more likely to be ventricular fibrillation (VF), and the lone rescuer should phone for professional help and get the AED (when available) before starting CPR and using the AED, if appropriate. Rescuers should perform CPR with minimal interruptions in chest compressions until attempted defibrillation.

In summary, the priorities for unwitnessed or nonsudden collapse in children are as follows:

- Start CPR immediately.
- Activate EMS/get the AED.

The priorities for witnessed sudden collapse in children are as follows:

- Activate EMS/get the AED.
- Start CPR.
- Attempt defibrillation.

Pulse Check

Lay rescuers should start chest compressions for an unresponsive infant or child who is not moving or breathing. Healthcare professionals may also check for a pulse but should proceed with CPR if they cannot feel a pulse within 10 seconds or are uncertain if a pulse is present.

Ventilations in Infants

There is no data to justify a change from the recommendation that the rescuer attempt mouth-to-mouth-and-nose ventilation for infants. Rescuers who have difficulty achieving a tight seal over the mouth and nose of an infant, however, may attempt either mouth-to-mouth or mouth-to-nose ventilation (LOE 5) (Tonkin & Gunn, 2001).

Circumferential Versus 2-Finger Chest Compressions

The 2 thumb-encircling hands chest compression technique with thoracic squeeze is the preferred technique for 2-rescuer infant CPR. The 2-finger technique is recommended for 1-rescuer infant CPR to facilitate rapid transition between compression and ventilation and to minimize interruptions in chest compressions. It remains an acceptable alternative method of chest compressions for 2 rescuers.

One- Versus 2-Hand Chest Compression Technique

Both the 1- and 2-hand techniques for chest compressions in children are acceptable provided that rescuers compress over the lower part of the sternum to a depth of approximately one third the anterior-posterior diameter of the chest. To simplify education, rescuers can be taught the same technique (i.e., 2-hand) for adult and child compressions.

Compression-Ventilation Ratio

For ease of teaching and retention, a universal compression ventilation ratio of 30:2 is recommended for the lone rescuer responding to infants (for neonates see National Guideline Clearinghouse summary of American Heart Association guideline Neonatal Resuscitation), children, and adults. For healthcare providers performing 2-rescuer CPR, a compression-ventilation ratio of 15:2 is recommended. When an advanced airway is established (e.g., a tracheal tube, esophageal-tracheal combitube [Combitube], or laryngeal mask airway [LMA]), ventilations are given without interrupting chest compressions.

Some CPR Versus No CPR

Bystander CPR is important for survival from cardiac arrest. Trained rescuers should be encouraged to provide both ventilations and chest compressions. If rescuers are reluctant to provide rescue breaths, however, they should be encouraged to perform chest compressions alone without interruption.

Disturbances in Cardiac Rhythm

Management of Supraventricular Tachycardias

If the child with supraventricular tachycardia (SVT) is hemodynamically stable, the Task Force members recommend early consultation with a pediatric cardiologist or other physician with appropriate expertise. This recommendation is common for all of the SVT topics below.

Vagal Maneuvers for SVT

The Valsalva maneuver and ice application to the face may be used to treat hemodynamically stable SVT in infants and children. When performed correctly, these maneuvers can be initiated quickly and safely and without altering subsequent therapies if they fail.

Amiodarone for Hemodynamically Stable SVT

Amiodarone may be considered in the treatment of hemodynamically stable SVT refractory to vagal maneuvers and adenosine. Rare but significant acute side effects include bradycardia, hypotension, and polymorphic ventricular tachycardia (VT) (LOE 5) (Yap, Hoomtje, & Sreeram, 2000; Daniels et al., 1998; Gandy, Wonko, & Kantoch, 1998).

Procainamide for Hemodynamically Stable SVT

Procainamide may be considered in the treatment of hemodynamically stable SVT refractory to vagal maneuvers and adenosine.

Management of Stable Wide-QRS Tachycardia

If a child with wide-QRS tachycardia is hemodynamically stable, early consultation with a pediatric cardiologist or other physician with appropriate expertise is recommended. In general, amiodarone and procainamide should not be administered together because their combination may increase risk of hypotension and ventricular arrhythmias.

Amiodarone

Wide-QRS tachycardia in children who are stable may be treated as SVT. If the diagnosis of VT is confirmed, amiodarone should be considered.

Procainamide for Stable VT

Procainamide may be considered in the treatment of hemodynamically stable VT.

Management of Unstable VT

Amiodarone

Synchronized cardioversion remains the treatment of choice for unstable VT. Amiodarone may be considered for treatment of hemodynamically unstable VT.

Pediatric Defibrillation

For additional information about consensus on science and treatment recommendations for defibrillation (e.g., 1 versus 3 stacked shock sequences and sequence of CPR first versus defibrillation first), see the NGC summary of the AHA guideline Defibrillation.

Manual and Automated External Defibrillation

The treatment of choice for pediatric VF/pulseless VT is prompt defibrillation, although the optimum dose is unknown. For manual defibrillation, the Task Force members recommend an initial dose of 2 J/kg (biphasic or monophasic waveform). If this dose does not terminate VF, subsequent doses should be 4 J/kg.

For automated defibrillation, the Task Force members recommend an initial pediatric attenuated dose for children 1 to 8 years of age and up to about 25 kg (55 pounds) and 127 cm (50 inches) in length. There is insufficient information to recommend for or against the use of an AED in infants <1 year of age. A variable dose manual defibrillator or an AED able to recognize pediatric shockable rhythms and equipped with dose attenuation are preferred; if such a defibrillator is not available, a standard AED with standard electrode pads may be used. A standard AED (without a dose attenuator) should be used for children ≥25 kg (about 8 years of age) and older adolescent and adult victims.

Management of Shock-Resistant VF/Pulseless VT

Amiodarone

Intravenous (IV) amiodarone can be considered as part of the treatment of shock-refractory or recurrent VT/VF.

Airway and Ventilation

Bag-Valve-Mask (BVM) Ventilation

In the out-of-hospital setting with short transport times, BVM ventilation is the method of choice for children who require ventilatory support. When transport times are long, the relative benefit versus potential harm of tracheal intubation compared with BVM ventilation is uncertain. It is affected by the level of training and experience of the healthcare professional and the availability of exhaled carbon dioxide (CO_2) monitoring during intubation and transport.

Advanced Airways

Cuffed Versus Uncuffed Tracheal Tubes

Cuffed tracheal tubes are as safe as uncuffed tubes for infants (except newborns) and children if rescuers use the correct tube size and cuff inflation pressure and verify tube position. Under certain circumstances (e.g., poor lung compliance, high airway resistance, and large glottic air leak), cuffed tracheal tubes may be preferable.

Laryngeal Mask Airway (LMA)

There is insufficient data to support or refute a recommendation for the routine use of an LMA for children in cardiac arrest. The LMA may be an acceptable initial alternative airway adjunct for experienced providers during pediatric cardiac arrest when tracheal intubation is difficult to achieve.

Confirmation of Tube Placement

Exhaled CO_2

In all settings (i.e., prehospital, emergency departments, intensive care units, operating rooms), confirmation of tracheal tube placement should be achieved using detection of exhaled CO_2 in intubated infants and children with a perfusing cardiac rhythm. This may be accomplished using a colorimetric detector or capnometry. During cardiac arrest, if exhaled CO_2 is not detected, tube position should be confirmed using direct laryngoscopy.

Esophageal Detector Device

The esophageal detector device may be considered for confirmation of tracheal tube placement in children weighing >20 kg.

Confirmation of Tracheal Tube Placement During Transport

The Task Force members recommend monitoring tracheal tube placement and patency in infants and children with a perfusing rhythm by continuous measurement or frequent intermittent detection of exhaled CO_2 during prehospital and intra- and interhospital transport.

Oxygen

Oxygen During Resuscitation

There is insufficient information to recommend for or against the use of any specific inspired oxygen concentration during and immediately after resuscitation from cardiac arrest. Until additional evidence is published, the Task Force members support healthcare providers' use of 100% oxygen during resuscitation (when available). Once circulation is restored, providers should monitor oxygen saturation and wean inspired oxygen while ensuring adequate oxygen delivery.

Vascular Access and Drugs for Cardiac Arrest

Routes of Drug Delivery

Intraosseous (IO) Access

The Task Force members recommend establishing IO access if vascular access is not achieved rapidly in any infant or child for whom IV drugs or fluids are urgently required.

Drugs Given via Tracheal Tube

Intravascular, including IO, injection of drugs is preferable to administration by the tracheal route. The recommended tracheal dose of atropine, epinephrine, or lidocaine is higher than the vascular dose and is as follows:

- Epinephrine 0.1 mg/kg (multiple LOE 6 studies)
- Lidocaine 2 to 3 mg/kg (LOE 3) (Hahnel et al., 1990) and multiple LOE 6 studies
- Atropine 0.03 mg/kg (LOE 2) (Lee et al., 1989)

The optimal tracheal doses of naloxone or vasopressin have not been determined.

Drugs in Cardiac Arrest

Dose of Epinephrine for Cardiac Arrest

Children in cardiac arrest should be given 10 micrograms/kg of epinephrine as the first and subsequent intravascular doses. Routine use of high-dose (100 micrograms/kg) intravascular epinephrine is not recommended and may be harmful, particularly in asphyxia. High-dose epinephrine may be considered in exceptional circumstances (e.g., beta-blocker overdose).

Vasopressin in Cardiac Arrest

There is insufficient evidence to recommend for or against the routine use of vasopressin during cardiac arrest in children.

Magnesium in Cardiac Arrest

Magnesium should be given for hypomagnesemia and torsades de pointes VT, but there is insufficient evidence to recommend for or against its routine use in cardiac arrest.

Postresuscitation Care

Ventilation

Hyperventilation

Hyperventilation after cardiac arrest may be harmful and should be avoided. The target of postresuscitation ventilation is normocapnia. Short periods of hyperventilation may be performed as a temporizing measure for the child with signs of impending cerebral herniation.

Temperature Control

Therapeutic Hypothermia

Induction of hypothermia (32 degrees C to 34 degrees C) for 12 to 24 hours should be considered in children who remain comatose after resuscitation from cardiac arrest.

Treatment of Hyperthermia

Healthcare providers should prevent hyperthermia and treat it aggressively in infants and children resuscitated from cardiac arrest.

Hemodynamic Support

Vasoactive Drugs

Vasoactive drugs should be considered to improve hemodynamic status in the post-cardiac arrest phase. The choice, timing, and dose of specific vasoactive drugs must be individualized and guided by available monitoring data.

Blood Glucose Control

Treatment of Hypoglycemia and Hyperglycemia

Healthcare providers should check glucose concentration during cardiac arrest and monitor it closely afterward with the goal of maintaining normoglycemia. Glucose-containing fluids are not indicated during CPR unless hypoglycemia is present (LOE 7) (Longstreth et al., 1986).

Prognosis

Predictors of Outcome in Children

The rescuer should consider whether to discontinue resuscitative efforts after 15 to 20 minutes of CPR. Relevant considerations include the cause of the arrest, preexisting conditions, whether the arrest was witnessed, duration of untreated cardiac arrest ("no flow"), effectiveness and duration of CPR ("low flow"), prompt availability of extracorporeal life support for a reversible disease process, and associated special circumstances (e.g., icy water drowning, toxic drug exposure).

Definitions:

Levels of Evidence

Level 1: Randomized clinical trials or meta-analyses of multiple clinical trials with substantial treatment effects

Level 2: Randomized clinical trials with smaller or less significant treatment effects

Level 3: Prospective, controlled, nonrandomized cohort studies

Level 4: Historic, nonrandomized cohort or case-control studies

Level 5: Case series; patients compiled in serial fashion, control group lacking

Level 6: Animal studies or mechanical model studies

Level 7: Extrapolations from existing data collected for other purposes, theoretical analyses

Level 8: Rational conjecture (common sense); common practices accepted before evidence-based guidelines

CLINICAL ALGORITHM(S)

The International Liaison Committee on Resuscitation (ILCOR) Universal Cardiac Arrest Algorithm is provided in the "Introduction" section of the original guideline document (see "Availability of Companion Documents" field).

EVIDENCE SUPPORTING THE RECOMMENDATIONS

REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting selected recommendations is provided in the "Major Recommendations" section of this summary.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of cardiopulmonary resuscitation in pediatric patients, resulting in successful outcome

POTENTIAL HARMS

- Side effects of pharmacological agents
- Complications associated with advanced airway placement

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This document summarizes current evidence for the recognition and response to sudden life-threatening events, particularly sudden cardiac arrest in victims of all ages. The broad range and number of topics reviewed and the inevitable limitations of journal space require succinctness in science statements and, where recommendations were appropriate, brevity in treatment recommendations. This is not a comprehensive review of every aspect of resuscitation medicine; some topics were omitted if there was no evidence or no new information.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Timeliness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Pediatric basic and advanced life support. In: 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Suppl):III73-90. [337 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005 Nov 29

GUIDELINE DEVELOPER(S)

American Heart Association - Professional Association

SOURCE(S) OF FUNDING

American Heart Association

GUIDELINE COMMITTEE

International Liaison Committee on Resuscitation (ILCOR)

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

A robust conflict of interest policy was developed to ensure full disclosure of potential conflicts and to protect the objectivity and credibility of the evidence evaluation and consensus development process. This policy is described in detail in an editorial companion document (see "Availability of Companion Documents" field). Representatives of manufacturers and industry did not participate in this conference.

Potential conflicts of interest of the editorial board are listed in Appendix 3 of the original guideline document (see "Availability of Companion Documents" field). Potential conflicts of interest of the worksheet authors are noted in the worksheets and can be accessed through the links to the worksheets contained in the original guideline document. All 380 attendees were required to complete forms in order to document their potential conflicts of interest. Most attendees were also worksheet authors. The information from the conflict of interest forms completed by all conference attendees, including worksheet authors, can also be accessed at the website http://circ.ahajournals.org/content/vol112/22_suppl/#APPENDIX. Readers of the print version can also access the statements at the American Heart Association website: www.C2005.org.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the American Heart Association Web site.

Print copies: Available from the American Heart Association, Public Information, 7272 Greenville Ave, Dallas, TX 75231-4596; Phone: 800-242-8721

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Introduction. 2005 International Consensus Conference on Cardiopulmonary Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Supplement):III-1-III-4.
- The evidence evaluation process for the 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Supplement):III-128-III-130.
- Conflict of interest management before, during, and after the 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Supplement):III-131-III-132.
- Controversial topics from the 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Supplement):III-133-III-136.
- Appendix 1: Worksheet topics and authors. Circulation 2005 Nov 29;112(22 Supplement):B1-B14.
- Appendix 3: Conflict of interest for editors, editorial board, special contributors and reviewers, and honorees. Circulation 2005 Nov 29;112(22 Supplement):B16-B18.
- Interdisciplinary topics: 2005 International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Circulation 2005 Nov 29;112(22 Supplement):III-100-III-108.

Electronic copies: Available from the American Heart Association Web site.

Print copies: Available from the American Heart Association, Public Information, 7272 Greenville Ave, Dallas, TX 75231-4596; Phone: 800-242-8721

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on February 6, 2006. The information was verified by the guideline developer on March 7, 2006.

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